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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,122	04/12/2007	Goran Forsstrom	43315-233025	8214

26694 7590 10/17/2011
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EXAMINER

HOLLOWAY III, EDWIN C

ART UNIT	PAPER NUMBER
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2612

MAIL DATE	DELIVERY MODE
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10/17/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,122	Applicant(s) FORSTROM, GORAN	
	Examiner EDWIN HOLLOWAY III	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-11, 13 and 14 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-11 and 13-14 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

EXAMINER'S RESPONSE

1. Applicant's submission filed 08 September 2011 has been entered. Claims 1-11 and 13-14 are pending. The examiner has considered the new presentation of claims and applicant's arguments in view of the disclosure and the present state of the prior art. And it is the examiner's position that the claims are unpatentable for the reasons set forth in this Office action:

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-11 and 13-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 1, lines 5-6 "each movable module comprises more than instrument..." is not supported by the specification as originally filed. It appears from applicant's arguments "more than" should be -- more than one--, but applicant has not pointed out support in the specification as originally filed for this limitation.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1-11 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 5-6 “each movable module comprises more than instrument...” is unclear. It appears from applicant’s arguments “more than” should be -- more than one--.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Rix '781 (US 20040056781 including incorporated US 6650254) in combination with Iggulden (US5579002).

Regarding claim 1, Rix '781 discloses system (computer input device 38) for control and monitoring equipment, comprising: a control panel (base 42, control panel in par 0143-0144); and at least one movable member (input members 40). Each movable module comprises at least one instrument, indicator or control member because elements 40 may be keys, buttons, button pads, thumb pads, joysticks, sliders, dials, track pads, track balls, jog/shuttle wheels, displays, strain gauge, pointing devices, acoustic speakers, switch 82 or microprocessor 140) in Rix 781 pars (0084,0085, 0096,0108,0114). The input members such as joysticks control a device such as a game and are considered to be control members. The members are called "controls" in pars 0094 and 0144 of Rix. The members may also include a microprocessor controller that is

considered a control member. The members may includes indicators such as displays that correspond to indicators or instruments. Rix includes attachment elements on the at least one movable module and control panel configured to attach the at least one movable module to the control panel (attachment including adhesives such as Magstick, POST-IT or VELCRO in pars. 0086-0090).

At least one of the members of Rix include more than one instrument, indicator or control member (plural of sliders, compound input member, combination of interface elements - pars 0084,0085). Further, each module comprises a communication unit (RFID IC 136 - fig. 10, or microprocessor 140 fig. 11 or transmitter -col. 0043-0045). configured to wirelessly communicate data (RF communication in par 0099,107,108 that is wireless - par 0068,0115), and wherein each module is powered without a wired connection to the control panel (power from RF antenna - par 0041,0046, 0099,0105);

Rix includes a central unit (base microcontroller 100) configured transmit and receive signals (DATA IN/OUT via transmitter 116 and receiver 118 - fig. 6) to at least one movable module(46,48,50). The movable modules receives signals from and transmits signal to the central unit (two way communication in par 0078,0115). The central unit may transmit data to the member by modulating the carrier (par 0077) and the member may transmit to the base by backscatter modulation and may include a communication module (136,140) or transmitter (col. 0043-0045). The central unit is configured to influence/control an externally controlled unit (host 64). See figs. 1,6 and pars 0041, 0047-0049 0068-0069 and 0074-0078.

Rix '781 differs from claim 1 by disclosing an externally controlled unit rather than the claimed units.

Iggulden disclose an analogous art user configurable control device for controlling a plurality of units (devices). See col. 4 lines 1-6 and 36-48.

Regarding claim 1, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Rix '781 the controlled/influenced units/devices of Iggulden to allow the user to make manual selection of a multiplicity of functions such as controlling consumer electronic devices (TV, VCR, stereo, etc.) suggested by the control of host computer or other device in Rix '781.

Regarding claim 2, Rix '781 discloses wherein the modules are adapted to work with wirelessly transferred electrical energy transmitted by an electrical energy transmitter (116) located in or adjacent the control panel. See pars 0077-0079, 0099 and 0105.

Regarding claim 3, Rix '781 includes illumination elements such as LEDs to indicate functions (par 0067, 0076), but does not expressly disclose a light source arranged in the control panel and comprising a light used for background lighting of the module located on the control panel.

Iggulden disclose an analogous art user configurable control device with light sources such as LEDs for illuminating movable keys from below to in response to actuation (fig 12 col. 9 lines 22-33, col. 10 lines 13-32)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have included in Rix '781 the limitation of a light source arranged in the control panel and comprising a light used for background lighting of the module located on the control panel as disclosed in Iggulden to indicate actuation of the module.

Regarding new claim 4, the at least one movable module comprises an internal electric power source would have been obvious in view of the internal power source in Rix '781 (par 0046).

Regarding new claim 5, the control panel comprises at least one opening configured to receive the at least one movable module, wherein the at least one movable module fits in the at least one opening in the control panel would have been obvious in view of the slots 106 in Iggulden for receiving and holding the key modules and suggested by Rix '781 disclosing that the keys be attached to a panel that may be any size, shape and/or contour (par 0049) and/or Rix '254 disclosing an attachment surface including a matrix of receptacles that may have a variety of shapes and sizes (col. 7 lines 28-41).

Regarding new claim 6, the at least one movable module comprises a flange to retain the at least one movable module in the at least one opening would have been obvious in view of the overhang the key cap body 112 and/or tab 116 to retain key 110 in Iggulden (fig. 6,7,9).

Regarding new claim 7, the at least one movable module magnetically attached to control panel would have been obvious in view of the magnet attachment in col. 7 lines 16-26 and col. 24 lines 42-53 of Rix '254 that is incorporated by reference in Rix '781

(par 0145).

Regarding new claim 8, at least one light source configured to light the at least one movable module, wherein the at least one light source is internal to the at least one movable module would have been obvious in view of the module including a display in Rix '781 (pars 0085, 0114) and or the display element including any one of a variety of display devices such as LED, LCD or the like in Iggulden (col. 10 lines 13-31)

Regarding new claim 9, the movable module comprises at least one indicator, pointer, pushbutton, switch, or display would have been obvious in view of the module including buttons, switch (82), pointing devices or display in Rix '781 (pars 0084,0085, 0096,0114) and/or the rotary knobs, slide switches, toggle switches, joysticks, display elements or buttons in Iggulden (col. 10 lines 1-65).

Regarding new claim 11, the at least one movable module communicates with the central unit with Bluetooth would have been obvious in view of incorporated Rix '254 disclosing that the wireless module may communicate by any known broadcast technique or protocol (col. 7 lines 14-26 and col. 24 lines 34-41) and Bluetooth is a known technique or protocols that is disclosed in Rix '781 (pars 0068,0069).

8. Claims 5,6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Rix '781 (US 20040056781 including incorporated US 6650254) in combination with Iggulden (US5579002) as applied above in view of Bramesfeld (US 6140593).

Bramesfeld discloses an analogous art reconfigurable switch array panel housing

12 having a single through bore 18 for each switch module/cap 20. See fig. 1 and col. 1 lines 18-53

Regarding new claim 10, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the combination applied above a plurality of movable modules, wherein the control panel comprises a plurality of openings configured to receive the movable module, wherein one movable module fits in each opening in the control panel would have been as disclosed in Bramesfeld because Rix '781 disclosing that the keys be attached to a panel that may be any size, shape and/or contour (par 0049) and/or Rix '254 disclosing an attachment surface including a matrix of receptacles that may have a variety of shapes and sizes (col. 7 lines 28-41).

If claim 5 is interpreted to include one opening per module, then such would have been obvious for the same reasons applied above to claim 10.

Regarding claim 6, the at least one movable module comprises a flange to retain the at least one movable module in the at least one opening would have been obvious in view of the overhang the key cap body 112 and/or tab 116 to retain key 110 in Iggulden (fig. 6,7,9) and/or the shoulder 44 in Bramesfeld (col. 3 lines 6-10) to engage the front face of the panel to prevent excess pushing.

Response to Arguments

9. Applicant's arguments filed 08 September 2011 have been fully considered but they are not persuasive and/or are moot in view of the new grounds of rejection.

Applicant argues that Rix lacks modules with more than one instrument, indicator

or control module. This argument is not persuasive because, as pointed out in the rejection, at least one of the members of Rix include more than one instrument, indicator or control member (plural of sliders, compound input member, combination of interface elements - pars 0084,0085).

Regarding the additional language add to claim 1, Rix discloses that each module comprises a communication unit (RFID IC 136 - fig. 10, or microprocessor 140 fig. 11 or transmitter -col. 0043-0045) configured to wirelessly communicate data (RF communication in par 0099,107,108 that is wireless - par 0068,0115), and wherein each module is powered without a wired connection to the control panel (power from RF antenna - par 0041,0046, 0099,0105).

Applicant argues that Iggulden lacks a panel and module. Applicant is incorrect. Iggulden includes a panel 12 and modules 10.

Applicant argues that the applied prior art lacks a movable module that transmits and receives signals because the modules passively communicate by modulating the carrier signal and do not function without carrier signal. This argument is not persuasive because Rix discloses two way communication (par 0078, 0115), Rix states that the members "transmit" to the base and may include transmitters (pars 0043-0045) and the claims do not exclude passive communication. Further, "actively" communicating with a central unit that influences/controls external units would have been obvious because Rix discloses that the input members may each include a transmitter (last three lines of par 0045) for active communication to central unit 42 that influences/control external unit

(host 64). Further, Rix '781 (par 0145) incorporates by reference US Application Ser. No. 09542011 that became Rix '254 (US 6650254). Therefore, the disclosure of Rix '254 is part of Rix '781. Rix '254 disclosed that the wireless module may communicate by any known broadcast technique or protocol (col. 7 lines 14-26 and col. 24 lines 34-41) and an active transmitter, such as a Bluetooth transmitter, is a known technique or protocol that is disclosed in Rix '781 (pars 0068,0069).

Applicant's argues that Iggulden lacks communication means. This argument is not persuasive because Iggulden discloses control elements may contain a resonant circuit that may be inductively coupled without direct contact - or coupled by magnetic, electromagnetic, optical, or acoustic means (col. 9 lines 45-50).

Regarding claims 5,6 and 10, applicant argues that Bramsesfeld does not overcome the deficiencies of Rix and Iggulden. This argument is not persuasive because the combination of Rix and Iggulden is not deficient for the reasons stated above.

The new 35 USC 112 rejections were necessitated by applicant's amendment.

Additional responses to arguments from the non-final rejection are repeated below:

Applicant argues that Rix includes input members that do not suggest instrument, indicator or control modules. The examiner disagrees because members 40 in Rix may be keys, buttons, button pads, thumb pads, joysticks, sliders, dials, track pads, track balls, jog/shuttle wheels, displays, strain gauge, pointing devices, acoustic speakers, switch 82 or microprocessor 140) in Rix 781 pars (0084,0085, 0096,0108,0114). The input

members such as joysticks control a device such as a game and are considered to be control members. The members are called "controls" in pars 0094 and 0144 of Rix. The members may also include a microprocessor controller that is considered a control member. The members may includes indicators such as displays that correspond to indicators or instruments.

Applicant argues that Iggulden lacks instrument, indicator or control members. This argument is not persuasive because the members (elements) in Iggulden are "control elements" (abstract) that may include joysticks or other controls (col. 10 lines 1-12). Further, the members may include "display elements" in col. 10 lines 13-32 of Iggulden that correspond to instruments or indicators.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWIN HOLLOWAY III whose telephone number is (571) 272-3058. The examiner can normally be reached on M-F from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman, can be reached on (571) 272-3059.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/12/2011
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Primary Examiner, Art Unit 2612